



H.E.F. CANADA QUARTERLY

The Human Ecology Foundation of Canada

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THE HUMAN ECOLOGY FOUNDATION OF CANADA

THE H.E.F. CANADA QUARTERLY

The H.E.F. Canada Quarterly is a publication of The Human Ecology Foundation of Canada, a charitable organization under Canadian law, operating on a non-profit basis. THE QUARTERLY is for people who are interested in health and its relation to our environment. It deals primarily with research in the field of clinical ecology, and also describes how people have improved their health by changes in habits, diet and environment. As such, it does not offer medical advice, and we urge persons wishing to experiment with changes in their lifestyle to do so with the help and guidance of a knowledgeable physician.

THE HUMAN ECOLOGY FOUNDATION OF CANADA

One of the purposes of the Human Ecology Foundation is to promote the free exchange of information on the prevention and treatment of ECOLOGICAL ILLNESS. People who are ecologically ill and/or environmentally hypersensitive are no longer able to adapt well to common and increasing exposures in their everyday environment. They may develop a variety of chronic or acute symptoms that are brought on by substances in the air, in food, in water, or in their home and/or workplace environments.

Natural inhalants such as pollens, dust and moulds, and even natural foods may begin to affect people adversely. This aspect of the condition is often referred to as "allergy", but the many synthetic chemicals that are now common around us can also cause symptoms, and overexposure to these can trigger ecological illness even in those with no history of allergy or other sensitivity to the environment. Symptoms may be mild and merely annoying, or they may become severe enough to interfere with a person's daily activities, family life, and career.

On a local basis, HEF branches work toward finding sources of chemically less-contaminated food, water, clothing, and household furnishings, as well as providing counselling on changes of lifestyle that may alleviate symptoms. H.E.F. and all its branches would like to encourage others to become involved not only in research on the effects of environment on health, but in working toward a healthier, less-polluted environment.

ENVIRONMENTAL HYPERSENSITIVITY IS A CHRONIC MULTISYSTEM DISORDER USUALLY INVOLVING SYMPTOMS OF THE CENTRAL NERVOUS SYSTEM AND AT LEAST ONE OTHER SYSTEM. (Thomson Committee Report 1985).

SUBSCRIPTION AND MEMBERSHIP

Membership in the Foundation includes a subscription to the HEF CANADA QUARTERLY which is published four times per year. Annual membership and subscription fee is \$20. WE INVITE NEW MEMBERS!

PRODUCT INFORMATION mentioned in THE QUARTERLY should be carefully evaluated for personal compatibility, since individual sensitivities vary widely. Mention of a product does not imply that H.E.F. endorses that product or service.

P R E S I D E N T ' S M E S S A G E

The past couple of months have been very busy and exciting. I attended the Consumer Health Conference in Toronto, the hearings for the World Commission on Environment and Development in Ottawa, the P.A.N. conference on pesticides in Ottawa and a Board Meeting in Hamilton.

The Consumer Health Conference is one in which various alternate health practitioners present their opinions. I find it very invigorating and informative. In most cases, it backs our beliefs of good water, air and food being primary to promoting good health.

The World Commission on Environment and Development held two days of hearings. Dr. Jozef Krop made a short presentation entitled "Survival Through Ecologism". This showed the effects of pesticides on the human brain. Dr. Gilka also presented a paper which was entitled "The Changing Environment and The Effects on the Newborn". Both papers were well received not only by the commission, but also by the other presenters. I would like to thank Dr. Krop and Dr. Gilka for presenting these papers.

During the Fate Of The Earth Conference (P.A.N.), Mrs. Katherine Nelms spoke about her experience with pesticide poisonings. I would like to thank her for participating. We also attended an organic dinner which was held in conjunction with the conference. Having organic food when eating out was a real treat.

Plans for the 1987 Medical Symposium and Conference are underway. 1987's conference will be open to the general public for one day. I hope that many of you will be able to attend. If we have a good turnout, then we'll be able to do it again. Write down the dates: April 3rd and 4th for medical practitioners, and April 4th for the public.

Our last appeal. The Board of Directors needs healthy, energetic, willing-to-work individuals to sit on the Board. If not you, how about a family member?

There is a lot to be done to educate the public. Let's not waste any time. If you or a family member is ready, willing and able to help, please contact me at 97 Village Green, Kanata, Ontario, K2L 1J8, or contact H.E.F. Head Office.

P.S.

LET'S HELP OURSELVES!

Last month the doorbell rang and I answered it. "Could you donate to the Kidney Fund?" I said sure, and wrote a cheque. After the door closed, the light dawned. Every time a charity comes to the door (e.g. The Cancer Society, The Heart Fund, The Kidney Foundation, Lung Foundation, Salvation Army, etc.), I

donate. But what about H.E.F.? Is it not a Charitable Foundation? Better yet, does it not help me directly? Why don't I donate to it? The only donations H.E.F. has received in the past are funds not claimed by the executive. They in fact give of their time and their money.

All of the above organizations receive help from other sources. Other health organizations all receive funding from Health and Welfare Canada. Is H.E.F. not as deserving? Much more could be done, especially in the areas of education and support, if there were more funds available.

The Celiac Foundation asked each of their members to donate a specific amount of money to help them. They had an excellent response. I am suggesting that this year each one of us save our donation money and give it to H.E.F. You will receive a charitable receipt for income tax purposes.

Let's get H.E.F. and Environmental Hypersensitivity into the public view.

Ecologically yours,

Lynda J. Brooks
H.E.F. National President

* * * * *

THE H.E.F. CANADA QUARTERLY is a communications line that belongs to all of us. We welcome your comments and contributions, your articles and inspirations. DON'T FORGET TO WRITE SOON!

THE H.E.F. CANADA QUARTERLY
Editor - Mary Merlin Nelson
261 Campbell Street
Winnipeg, MB CANADA
R3N 1B4

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Technical Consultant - Timothy Nelson, B.C.Sc.(Hon.)
*Art Work - Patricia Nightingale and Mary Merlin Nelson
*Quarterly Mascot - ERGY The Alien
Proofreader - Patrick Niesink, B.C.Sc.(Hon.)

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GOOD CLEAN WATER FOR THE CHEMICALLY SENSITIVE

by Dr. Virginia Salares

Pure water is a basic necessity. Everyone needs water uncontaminated with any chemical. Unfortunately, the quality of water for drinking or cooking has deteriorated worldwide. As piped water is made available for municipalities, more people are drinking chlorinated water which unavoidably contains compounds called haloforms (from the reaction of chloride with organic compounds). Most people have no choice about fluoride, added presumably to decrease the incidence of dental cavities. Evidence now suggests that fluoridation of drinking water is of questionable value, and the ability of fluoride to destroy enzymes indicates that it could be a contributing factor in the development of chronic diseases such as hypoglycemia, diabetes, heart disease and mental disorders. Hypersensitive individuals have long been known to be adversely affected by the fluoride in water or in toothpaste.

In addition to these chemicals which are deliberately added to city water, other chemical contaminants may be present. Proximity of the water source to chemical factories and other industries makes contamination of the water more likely. Effluent discharges into the water source, or into tributaries that feed into the water supply, have made some water sources into a virtual chemical soup. In Toronto, the Metropolitan Works Department tests for about 175 chemicals in the water. Fifty-one chemicals, including persistent chemicals like lindane, aldrin and dieldrin, were identified between 1978 and 1984. Pesticide residues like PCBs and dioxins have also been found in herring gull eggs and fish from Lake Ontario.

Heavy metals are a widespread contaminant in piped water, lead from lead pipes or soldering material, copper from copper pipes, and cadmium from pipes (as impurities in zinc used many years ago from the galvanizing process). The amount of heavy metals leached from the mains and pipes increases with the acidity of the water. To what extent acid rain affects the acidity of water sources remains to be seen.

Rural homes which have their own wells are not immune from contaminants. Wells near dumpsites, or near industries which have discharged waste products in the locality, have been found unfit for drinking. Agricultural chemicals can leach into the water table. Pesticide applications on roadsides have led to well water contamination. Current lawn care practices, using herbicides for weed control, introduce more chemicals into the soil (which eventually could find their way into the groundwater).

So, which water is fit to drink? Ads and articles on different methods of water purification make it difficult to choose. On a short term basis, without making a hefty investment on a water purifier, look around for a spring water source.

BOTTLED WATER

It is useful to find out if the water comes from a natural spring or a drilled well. Bottled water could also be treated city water in some cases. Is the water passed through a filter or pre-treated by a chemical or process before bottling? Request a lab-analysis (standard tests give bacterial counts and concentrations of some minerals) and mineral analysis if available. Tests for heavy metals are quite costly and therefore not routinely done. If the results are satisfactory to you, the final test is testing the water yourself, preferably on an empty stomach in the morning. Decide whether you can tolerate the water or not.

The cost of bottled water over a long period of time can be sizeable, and could be used to purchase a water purification device. Three purification devices are distillers, reverse osmosis, and ozonators.

DISTILLERS

The distiller operates on the principle of converting the water into steam, which eventually condenses it into the end-product, distilled water. Minerals and non-volatile impurities are volatilized. To remove the gaseous components from the distillate requires a good separation of the boiling points of the contaminants from that of water, and efficient venting. Commercial distillers cannot remove 100% of the contaminants. Laboratory analyses of spiked water samples (a measured amount of the test material is added) show from 97 to 99% removal. That small fraction left in the water cannot be ignored. City water subjected to distillation will remove some of the contaminants but not all. Indeed, the distilled water would be better than tap water, but the chemically sensitive, cancer patient, or anyone who wishes to get pure water, will not get the best water from distilling tap water.

A distiller can be useful. It can be used for water that is not too bad to begin with. Spring water that may be high in minerals but relatively free of pesticides would be acceptable when distilled. The choice of a distiller depends on several factors. If the water to be distilled is to be obtained elsewhere than from your own well, the distiller should be designed for manual filling option. Distillers that operate only on line, like some stove-top models, would not be suitable. If you have a well, it is convenient to have the distiller operating on line, connected to the plumbing. The distilling chamber should be made of stainless steel, without any aluminum or plastic parts, and should be easy to clean. Vinegar, rather than commercial de-scalers, is suggested for cleaning. Soak the distilling chamber in vinegar overnight to loosen mineral deposits, rinse well, and discard some of the early distillate.

REVERSE OSMOSIS

The water is passed through membranes to filter out impurities and heavy metals. The process runs on the pressure of the municipal or home water supply. The reverse osmosis membranes can separate and flush out large particle size impurities, but chlorine and small volatile impurities may pass through. These can be removed with an active charcoal filter. Maintenance involves making sure the membranes are not clogged, and periodic replacement of the membranes and the activated charcoal.

Water purified through reverse osmosis is tolerable for some chemically sensitive individuals. It is important to test the membrane used. There are also different kinds of activated charcoal: those derived from coal, coconut, and petroleum products. Find out if you can tolerate the charcoal at all. It may also be a good idea to request that the distributor refer you to someone who has had the RO device for at least a year. That way, you can find out if you will be likely to tolerate the RO water even after the device has been in use for some time.

OZONATOR

An ozonator is a device that utilizes ozone, a very reactive gas, and powerful bactericide. Ozone, produced by the machine, breaks down organic compounds and oxidizes heavy metals which are precipitated out and removed by filtration.

The greatest difficulty lies in making sure exposure to ozone is avoided. Ozone is a lung, skin and eye irritant. It is also a mutagen - it can destroy genetic material. To prevent exposure, operate the machine under the kitchen hood (it takes 15 minutes to purify a gallon), in a well-ventilated area, or outdoors in warm weather. Let the water stand for some time to allow breakdown of traces of ozone.

With any purification device, the final product has to be tested for individual tolerability. Some well-meaning people can try to convince you that they recovered, or feel better, after using one kind of purifier. What works for others may not work for you. The quality of the source water you use will also determine the purity of the final product.

SOURCES: Water Purity Systems, 537 Brant St., Burlington, Ont. L7R 2G6; Reverse Osmosis from local water conditioning companies; Ozonator Systems Inc., 5288 General Road, Unit 5, Mississauga, Ont. L4W 1Z8

[Dr. Virginia Salares has a doctorate in chemistry, and is presently the president of the Ottawa Branch of H.E.F. In our next edition, we'll feature ECOLOGICAL FOOD SHOPPING ON A BUDGET. Many thanks for this, and for future articles, Dr. Salares. MMN]

THE TOXIC REACTION

by Phyllis Saifer, M.D., M.P.H., and Merla Zellerbach

[The following excerpts from DETOX: A Successful & Supportive Program for Freeing Your Body from the Physical and Psychological Effects of Chemical Pollutants and Other Environmental Toxins are reprinted with the permission of the authors. THANKS AGAIN!]

WHO IS SUSCEPTIBLE?

While toxins are universally injurious, reactions to them are neither uniform nor predictable. An unrepaired gas leak in the basement could give you dizzy spells, cause your neighbor to have aching joints, and leave your child unable to concentrate on his homework.

Seven factors determine your response to a given toxin and the degree of damage it can produce.

HOW MUCH of the toxin is ingested, inhaled or absorbed. Getting twenty chest X rays exposes you to twice as much radiation as ten. You can breathe polluted air for thirty minutes with no ill effects, but after a two hour walk you may begin to get symptoms.

THE POTENCY of the substance. Dioxin, a defoliant and industrial waste product, is the most potent carcinogen known. The state of New York considers fish with more than 10 parts per trillion of dioxin unsafe to eat. By contrast, it takes 300 million parts per trillion of PCB's (polychlorinated biphenyls) to contaminate the air to an unacceptable level.

FREQUENCY OF CONTACT. The most common exposures to toxins are on the job, especially in offices, factories, laboratories, and farms; accidental poisoning in the home; adverse reactions to medication or to ordinary products such as cleaning fluid; proximity to industrial wastes, pesticides, or bad air; and abusive use of drugs for behavioral and psychic effects.

INHERITED SUSCEPTIBILITIES. You may be physiologically or psychologically predisposed to react to certain substances. If one or both parents had emphysema, lung cancer, or asbestosis, for instance, your lungs could be more vulnerable to inhalants.

CURRENT STATE OF HEALTH. An accident, surgery, or viral illness in the recent past can weaken your defences (especially your liver and immune system) and make you more prone to react.

OTHER STRESSES. Worry, grief, anxiety, and all negative emotions reduce the body's natural defenses and heighten vulnerability.

TOLERANCE THRESHOLD, also called the "full barrel" or "overload phenomenon". Everyone has a specific level, or tolerance threshold, which should not be exceeded. If the amount of toxins coming into the body stays under that level, the system will

adapt and metabolize or excrete the poisons harmlessly. Once the toxins reach that level, however, the tiniest insult in the form of food additives, air pollutants, drugs, or other chemicals will overload the system and cause it to overflow in the form of mental or physical symptoms.

INDOOR AIR POLLUTANTS

In late 1979, James L. Repace, an EPA official, carried a sensitive air-monitoring device as he went about his daily work, walked in smog, and drove through rush-hour traffic. To his surprise, the device showed the highest levels of air pollution while he was waiting for dinner in his own kitchen.

In the last few years indoor air pollution has been recognized as a growing and serious problem. The reason, according to the 1982 California State Consumers Affairs publication, CLEAN YOUR ROOM! is: "Building design changes intended to conserve energy, new materials used in construction, and the presence indoors of numerous hazardous substances are combining to make the indoor environment, where most Americans spend 90 percent of their time, an unhealthy place."

A ban passed by the U.S. Consumer Product Safety Commission in 1982 made it illegal to install urea-formaldehyde foam insulation (UFFI) in homes and schools but it has since been overturned and is now on appeal. That same year a New York science teacher named Michael Wagner won a \$225,000 settlement from the company that installed UFFI in his home. Once sensitized to the chemical, Wagner had to make drastic changes in his habits. "I can't eat food cooked on natural gas", he told a reporter. "My wife can't use cosmetics, and oven cleaner is enough to make me sick for days. It's almost like living in a bubble - except the bubble can't be plastic because it contains formaldehyde."

BEGINNING THE DETOX PROGRAM

You have now taken the first step in helping your body to health by thinking about some of your long-time habits and wondering if they merit the physical price tags. Perhaps you are already body-conscious; you take excellent care of yourself and have few bad habits, yet you still feel less than 100 percent. The General Detox Program that Dr. Saifer has developed has proven effective not only for chemically sensitive patients, but for those concerned with preventive health care and environmental cleanup. Taken in small steps, the seemingly grand-scale task of minimizing exposure to substances harmful to human biology will become routine and almost second nature.

THE INDOOR CLEANUP

Those who suffer most from indoor pollution are infants, the elderly, the chronically ill, allergic persons, and expectant mothers, but we all pay a price whether it is obvious or not.

Because the time lag between exposure and effect can range from instantaneous to months or even years, most of us fail to see a connection between indoor pollution and headaches, fatigue, skin rashes, mental disorders, and various undiagnosed symptoms.

One reason for this lag is that people react to substances and situations at some times and not at others, depending on the full-barrel concept. By reducing the total load of indoor toxins, you are much less likely to cross your tolerance threshold. Only when you overload your barrel do symptoms appear.

Carl T., a law student, consulted Dr. Saifer when he found himself confused, headachy, and unable to concentrate on his studies. A detailed history revealed that he had seen a spider in the shower a few days prior to the start of his problems and had begun spraying his bathroom with insecticide. He also smoked and wore strong-scented colognes to mask the tobacco odors - habits he had had for years with no noticeable symptoms. The pesticide was the last straw that pushed him over his tolerance threshold. When he stopped spraying, his symptoms diminished, but not until he stopped smoking and self-deodorizing as well did he regain the health he had had before he crossed his tolerance threshold.

Detoxifying your home and work environments is the starting point toward ultimately detoxifying yourself. To do this, you need to discover the source of your toxic ills. Study the world around you with an alert mind and acute senses. Note any sudden mood changes or physical symptoms related to the use of a particular food, smell, or substance. Determine if you feel better or worse in specific areas, even around certain people. Begin a room-by-room checklist to see if there might be a common denominator. Our general procedure follows.

BEDROOM. Depending on the severity of your symptoms, your cleanup can be minor or extensive. Your eventual goal will be to replace synthetic furnishings made with materials such as polyester and foam rubber with natural fibers such as cotton, linen, and wool. Whenever you buy new bedding, linens, curtains, or solid furniture, it is important to remember that almost all synthetic fabrics outgas, or give off gases, and should be avoided if they have any "new" smell. Metal, glass, rattan, and hard wood furniture are generally nontoxic.

Whether or not you are hypersensitive, it is wise to keep garments that have been dry-cleaned, mothproofed, or washed in detergent in closed drawers and closets. Do the same with inks, cleaning agents, scented cosmetics, perfumes, and all products with odors. Store these items where they cannot pollute your air, or better yet, replace them with nontoxic substances.

If your home has forced air heating, gas and oils from the furnace can be toxic. Close the vent, seal with tape, and use a portable electric heater. You can insulate your bedroom from gas and other fumes in the rest of the house by putting weather-stripping around the door.

KITCHEN. Substitute toxic cleaning products with toxin-free alternatives, and, if possible, replace a gas stove with an electric one. All stoves should be vented to prevent buildup of the air pollutants associated with burning fuels. Minimize use of synthetic furnishings, such as Dacron curtains, which outgas considerably in the heat generated by cooking. Look instead for cotton, linen, or unbleached muslin. Formica and most hard plastics do not outgas and are safe. The rule we always come back to is: If a product has an odor, avoid it.

BATHROOM. Dispose of all drugs with overdue expiration dates and those you no longer use. Keep toiletries, cosmetics, and cleaning products inside drawers or cabinets. Use a charcoal filter on the shower to cut down chlorine fumes. In fact, consider using a charcoal filter on your entire water supply to eliminate chlorine and other toxic substances.

GENERAL. A home loaded with knickknacks is a home loaded with dust, and dust not only causes allergies, it may also contain fragments of lead, asbestos fibers, particles from tobacco smoke, and other toxins. Remove as many extraneous objects as you can bear to part with, keep your home clean and well vacuumed and open windows when the air is clean. If you use a wood-burning stove or fireplace, be sure the flue, vent, or chimney is unobstructed and that the smoke goes outside. Combine common sense with your newly gained knowledge to create a toxin-free residence.

THE GENERAL DETOX PROGRAM

Step One: NUTRITION - Build up your toxic resistance.
Step Two: EXERCISE - Detox while you sweat.
Step Three: RELAXATION - Hang Loose!

There are a number of techniques that work well to balance out the ravages of stress: massage, relaxation tapes, biofeedback, yoga, self-hypnosis, water therapy, meditation, and listening to music. Spend at least twenty minutes a day slowing down your brain and body processes. When you relax, the body's self-healing mechanisms go to work to replace cells, tissue, and whatever else toxic substances have damaged.

* * * *

[EDITOR'S NOTE: 'DETOX' is written by Dr. Phyllis Saifer and Merla Zellerbach, published by Jeremy P. Tarcher, Inc., Los Angeles, and is newly available in paperback. Check your favourite health food store or book seller for this excellent step-by-step "how to" program. It INFORMS and INSPIRES. We're proud to add it to our list of Publications Available from H.E.F., along with The Type 1/Type 2 Allergy Relief Program by Alan Scott Levin, M.D., and Merla Zellerbach. Bless you, Merla!]

A C L E A N S T A R T
BUILDING A SAFE HOME FROM THE GROUND UP

by Anne Bailey, R.N.

[The following article was originally published in Rodale's 'NEW SHELTER' in September 1984, and is reprinted with the permission of the author, an H.E.F. member from Glencoe, Missouri.]

The diagnosis came as a shock. Dr. Theron Randolph, the world's leading expert on environmental illnesses, had just explained that my son and I were "environmentally sensitive". From then on, we would have to be very careful about the food we ate, the water we drank, the clothes we wore, and (most difficult of all) the home we lived in.

At first we thought we could find an existing house to fit our special needs. But after moving four times, chased from one house to the next by exhaust from nearby highways, termiticides and other pesticides, lawn-care herbicides, chemical fertilizers, and worsening outdoor air, we realized we would have to create our own pollution-free haven.

Although no one knows exactly how many people have environmental illnesses, estimates run into the millions, and the number is growing rapidly as we're all exposed to more and more pollutants. Even if you aren't environmentally sensitive, it stands to reason that you would want your next home as free as possible from potential health hazards.

My list of recommendations for achieving that goal is based on our experience and extensive personal research. In particular, choosing building materials that our family could live with entailed a great deal of digging, including much reading and many phone calls to physicians, other environmentally sensitive homebuilders, and manufacturers. We kept meticulous records, since manufacturers frequently change the formulation of their products. In our contacts with manufacturers, we tried to speak directly with either the product-reliability manager or the chief chemist. Such people are sources of abundant information that they are happy to share.

The approaches, techniques, and products I suggest here have worked for us in my family, with our varying degrees of sensitivity. But no product is safe for everyone. If your health is seriously affected by environmental sensitivities, consult your doctor before choosing any product.

SITE SELECTION: Clean outdoor air and an unpolluted water supply are essential to an environmentally safe home. We chose to build in a heavily wooded area where zoning laws called for a minimum lot size of 3 acres. There were no nearby major highways and none planned for at least the next ten years.

Neighbour's lawns, and chemical lawn care, would be limited by heavy tree cover and rock outcroppings. There were no confirmed or suspected locations of dioxin-contaminated ground in the area (a serious problem in this part of Missouri). The homes already built here had deep individual wells that extended down 450 feet into an aquifer of crystal-clear water protected from surface contamination by its depth and by solid rock.

HOUSE DESIGN: I recommend an open floor plan and lots of windows. The open plan will lend itself to quick airing out of burned-food odors, outgassing of new building materials, or any other episodic pollutants. Glass has a very low toxicity, and in our case, our many windows bring us close to a beautiful outdoor setting. [Editor's Note: A separate kitchen is preferred by some people so they can confine cooking odors to the kitchen.]

WORKING WITH CONTRACTORS: To build a truly healthy home, you'll need to monitor every step of the construction process. This necessity convinced us to act as our own general contractors. We were fortunate to find a mentor, a contractor who built our shell and helped us to find good sub-contractors. Whenever we had problems, he was there to guide us and to help the subs understand our special needs.

Nevertheless, working with a multitude of subcontractors requires considerable tact and creative effort. We hired only non-smokers, since we couldn't allow smoking once the house was closed in. And we asked each worker to sign our "Red Book", our record of everyone who contributed to the building of our home. That fostered a friendly atmosphere and led to willing cooperation with our unusual requests.

SITE PREPARATION: Specify that all debris be carted away from your home site. Since we could not have our house chemically treated against termites, we had to be particularly careful to remove anything they might feed upon. We had to make sure wood scraps and bits of tree roots weren't left lying under and around the foundation and basement floor. Our three sons were a tremendous help in clearing the site.

EXCAVATION: Position your house with good drainage in mind, to prevent mold and mildew problems. Temporary grading, early in construction, should encourage runoff to bypass your house.

FOUNDATION: All poured concrete should be free of additives that speed up (or slow down) curing. Common additives include calcium chloride, WRDA II, triethylchloramine, and calcium formate. These and other additives cause problems for many chemically sensitive people.

We treated our foundation walls with the waterproofer Thoro-Seal. It's a clear, pungent sealer that dries to a hard, odorless finish. Before backfilling, we further protected the exterior of the foundation walls with 4-mil polyethylene sheets. Perforated perimeter drainpipe laid in gravel around the base of the foundation will also help prevent moisture problems inside the house. If you're pouring a slab floor, first lay additional

polyethylene underneath. Work the poured floor to a glossy-smooth surface to prevent later "dusting off" of surface rough spots.

TERMITE CONTROL: Chlordane, the most common termiticide, is an extremely toxic chemical. As an alternative to chlordane (it makes everyone in our family very ill), we installed termite shields, metal barriers between the foundation and the framing lumber. Keep all termite shields exposed for easy inspection, so you can check frequently to see if termites have built mud tunnels up past the metal.

FRAMING LUMBER: Don't leave delivered lumber exposed to the elements where it can grow mold and mildew. We delayed delivery of our wood (in fact, most of our materials) until we were ready to use it. Inspect all lumber for mold and mildew, and discard any affected pieces. If you find mold or mildew on already framed walls, spray the affected board with bleach.

Oak, maple, spruce, fir, and pine are all usually well tolerated by the chemically sensitive, although some people have trouble with the softer woods. For our framing lumber, we chose kiln-dried, untreated yellow pine.

EXTERIOR SHEATHING: We recommend plain gypsum board for exterior sheathing. Other commercial sheathing materials (particleboard and plywood) outgas much formaldehyde and cause people in my family immediate headaches.

SIDING: An all-brick exterior is ideal. A good, somewhat less expensive second choice is cedar. We used cedar, with a brick veneer on the front of the house. Cedar tolerates weather conditions in most climates and is easy to maintain.

We had planned to let our siding age "naturally" to a grayish color until we learned that this aging process is caused by mold and mildew. We applied a clear stain with mildewcide to prevent mildew from growing.

WINDOWS: All commercially available wood windows are treated at the factory with strong insecticides and mildewcides. We found the cost of chemical-free custom windows prohibitive and chose instead metal windows with baked-on enamel surfaces and a poured, hardened polyurethane thermal break. This small amount of plastic hasn't created any problems.

EXTERIOR DOORS: Wood doors are heavily treated, and metal doors have polyurethane-foam cores (for insulation) that may undergo outgassing in heat or sunlight. We chose wood doors, but painted them with a primer and several coats of a soy-based enamel paint to seal in the chemicals.

ROOFING MATERIALS: Environmentally safe roofing materials include slate and tile (too expensive for us) and metal (not used in this area). We were left with a choice between wood, asphalt, or fiberglass shingles. Wood was a fire hazard and asphalt had too strong an odor, so we decided on fiberglass. Fiberglass

shingles contain some asphalt but they outgas quickly in the sun.

Roof decking under the shingles is another important issue. Solid-wood 1x8's are good but costly to install. We used exterior-grade plywood. Made with phenol formaldehyde glues, it's less toxic than interior-grade plywood made with urea formaldehyde. We let it sit in the sun so outgassing could take place before we applied our shingles.

INSULATION: Many kinds of insulation (urea formaldehyde foam in particular) can cause problems for the environmentally sensitive. We found fiberglass to be the least offensive choice. If you use fiberglass, check with the manufacturers to find out which kind currently has the lowest level of formaldehyde. Outgassing should take place fairly quickly, if you make sure no glues or other adhesives are used to install the fiberglass. Avoid fiberglass batts faced with Kraft paper. They have a tarlike glue that holds the insulation to the paper.

THE GARAGE: A detached garage is best. It lets you keep toxic odors and fumes (from automobile exhaust and products normally stored in garages) out of your living spaces. If you prefer an attached garage, the door connecting it to your house will need extra-tight seals. An attached garage should also be well ventilated to the outdoors, not into your attic space.

HEATING AND COOLING: Forced air from heating and cooling systems can push a myriad of pollutants, ranging from carbon monoxide to "fried dust", into your home. After considerable research, we decided on a high-efficiency reversible electric heat pump (it cools also). It costs less to operate than most other systems, and our family tolerates it well.

The heat pump calls on resistance heat (the primary source of fried dust) only on the coldest winter days, and with a central system such as ours, you can install a filter medium in the downstream cool-air return duct to clear the air even more. Our Space-Gard paper air filter efficiently removes pollen, dust, etc., from the airstream before the air hits the heating/cooling coil or the resistance elements.

If you buy a heat pump, get one with an all-copper coil. And wash your ductwork with vinegar before installation. Sheet metal is typically coated with a fine spray of oil that can dissipate into the airstream.

PLUMBING: To get the water from our 450-foot well into our pipes and through our taps in its purest state, we use a stainless-steel submersible pump (no plastic components), and "old fashioned" air-pressure, galvanized-steel tank (no rubber bladder or plastic parts), and faucets and shower heads of copper and stainless steel (no Teflon or other plastic parts). We also flushed out our copper pipes thoroughly after installation.

We recommend the following fixtures for anyone concerned about chemical contamination: porcelain toilets with wooden seats, glass shower doors instead of plastic curtains (the plastic is treated with mildewcides and made with high levels of formaldehyde), sinks and tubs with porcelain surfaces applied

onto steel or cast iron (make sure there's no asphalt undercoating), and waste pipes of galvanized steel or cast iron (plastic plumbing, if used, must not be exposed).

INTERIOR WALLS: Most experts on chemical sensitivities recommend plaster over metal lath for your interior walls. If you follow this advice, use only plain plaster of paris. Many plasters are contaminated with mold retardants, plasticizers, asbestos and other pollutants.

If you prefer drywall (a cheaper alternative), check with the manufacturers of brands available in your area, and select the least problematic. If none works for your family, you could use untreated, prefinished solid-wood paneling or ceramic tile.

FLOORING: The typical flooring route, an interior-grade plywood subfloor (heavily laden with formaldehyde) covered with rubber padding and wall-to-wall synthetic carpet, can be a disaster for chemically sensitive homeowners. If you must use carpeting, choose a short, closed-loop nylon type. Instead of antistatic chemicals, this kind of carpet employs copper wires and carbon filaments to minimize static electricity.

The best subfloor would be made of solid-wood 1x8's laid at a 45-degree angle over the floor joists, but that's expensive and labor-intensive to install. If your budget calls for plywood, choose an exterior grade with its lower formaldehyde content. Let outgassing take place in your open home for several weeks before placing anything over or under the plywood.

We waited three weeks before nailing down prefinished, tongue-and-groove oak flooring, stained and sealed with several coats of finish in the factory by means of a heat-sealing method that creates an outgassing equivalent to two years of aging. We used ceramic tile on the floors of our bathrooms. Other acceptable flooring materials are terrazo, stone, brick, and quarry tile.

TRIM: Select prefinished wood trim and interior doors to avoid fumes from home-applied stains and varnishes. Beware of molded plastic imitations of wood or plaster trim and all products made of processed wood fibers (they contain formaldehyde).

PAINT: In choosing paints, it's essential that you do your own careful research. Deal directly with manufacturers and their chief chemists. Chemists have told us that the formulation of their paints change frequently. Be sure to keep up to date on your facts.

Oil-based paints are sometimes recommended, since they can seal contaminants out of the living space and may last 10 to 15 years. But it takes up to a year for outgassing to occur adequately, and chemists for the manufacturers admit that the oil is a good food source for mold. Latex paints may be better. We chose Benjamin Moore Aqua-Velvet eggshell finish for the walls and satin finish for the ceilings. These paints are scrubbable and contain no mildewcides or pesticides. Other environmentally sensitive persons have had good luck with Sears 840-series latex and Du Pont latex (without Teflon).

KITCHEN CABINETS: Behind the facades of most "wood" cabinets, you will discover sides, tops, bottoms and shelves made of particleboard or interior-grade plywood. Such interiors make them major sources of formaldehyde. Metal cabinets are an alternative, although some are made with extruded polystyrene cores. Metal cabinets with all-metal interiors can be ordered with metal or prefinished solid-wood doors.

COUNTERTOPS: Most counter surfaces (plastic laminate, ceramic tile, slate) are applied to a base of particleboard. Make sure that core is sealed on all sides. The surfaces just mentioned, as well as Du Pont's Corian, are well tolerated by many environmentally sensitive people.

APPLIANCES: Use electricity for cooking and baking. Your electric oven should be self-cleaning rather than continuous-cleaning. The latter type involves a chemical-laden coating that outgasses into your food and the air of your kitchen each time you use the oven. A self-cleaning oven also helps you avoid polluting your home with toxic oven-cleaning products.

Be sure to install a high-powered range hood ducted to the outside. Good ventilation is essential in the kitchen, where odors from cooking and burned food can cause adverse reactions.

Dishwashers often harbor a hidden source of indoor-air pollution in the form of tar-based insulation that produces outgassing whenever the unit is used. Some dishwashers contain only fiberglass insulation, have porcelain interiors, and have an optional cycle that prevents detergent buildup on your dishes.

A H A P P Y B E G I N N I N G

For us, going the extra mile to design and build a healthy home has been well worth the effort. The payoff in improved health for our family has been remarkable. We no longer suffer frequent headaches, sinus congestion, chemical depression, burning eyes, ear infections, and chronic sore throats.

Not everyone will want to follow every guideline I've set forth. Some may want to exercise even greater caution with certain materials. But the basic principles can be followed by most builders, and should result in a healthier home for healthier homeowners.

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EDITOR'S NOTE: Further to PAINT, in a past edition of The Quarterly, we told you COLOR YOUR WORLD has latex paint that does not contain acrylic. Incorrect, according to their Toronto chemist. This confirms research my husband and I have done over the past several years. ALL LATEX PAINT CONTAINS ACRYLIC. It is highly toxic to those hypersensitive to it. CAVEAT EMPTOR! MMN]
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C R O S S T A L K

[Letters, comments, information exchange, inspiration, chuckles and suggestions from H.E.F. Canada Members. THANKS FOR SHARING!]

ON THE LIGHTER SIDE

by Lesley Forrester
Belleville, Ontario

For many years I've enjoyed playing detective. The buzzword when I was in the business world sounded a little classier: "troubleshooter". Finding out what went wrong and why was always satisfying to me, but never as much as when I started playing detective with symptoms of environmental illness.

True, I got some strange reactions from my spouse, family and friends when I'd announce my latest find with a wall to wall grin and the exuberance of Martin Short on Saturday Night Live. To people who are accustomed to obliterating symptoms with drugs and alcohol, finding a cause is irrelevant, much less something to be happy about. The fact that it meant I could take action to prevent the symptom didn't seem to occur to them.

The real fun began when I discovered I could help other people eliminate their symptoms. I'm not sure how the subject of environmental illness (E.I.) always seemed to crop up. I don't suppose it was connected to my staggering into work each day with my clean air machine, my cooler full of serums, my spring water and my organic food. Most people at first assumed (and I suppose I ought to confess to encouraging the assumption) that my clean air machine was some strange piece of audio-visual equipment. Come to think of it, it does tend to alter my audio and visual responses ...

Reactions to my cooler were even more tempting to encourage. There are any number of people who are convinced that I carry my own six-pack with me everywhere. Others suspect it's a spare battery. (I admit to them I could use it when my energy level wanes.)

Anyway, all that aside, somehow we get talking about E.I., and I rarely discover that they don't have allergies. Those rare creatures who don't, always seem to have a spouse or child with more than enough symptoms to make up for their lack. Then the hunt begins.

First there was the one with migraines. Baddies. She started keeping a diary. Solution? Easy. Sulphites in the salad bar whenever she went out to eat.

The next one came up when I was putting newspaper articles on the bulletin board, while wearing my white cotton gloves. In between cracks about being into mime and those about overdressing for work, came a query about a skin rash on someone's spouse's

hands. He knew she had a reaction to costume jewellery, and I discovered she was a bank teller. Guessed yet? Right, allergy to nickel (count them) ...

Today there was the student with tears in her eyes who couldn't read. Headaches. Nausea. That drugged feeling of fatigue. I'm betting on printer's ink. Maybe, if she'd met a detective earlier, she wouldn't have failed reading year after year until, at age 21, she came back to try again "because when my son starts to read I'm gonna feel really dumb if I can't help him with his homework." What a waste.

Anyone else tempted to play detective? Watch it if you are. I have a strong suspicion that research will show it's a characteristic symptom of E.I. And it has one feature which distinguishes it from all the others. It's catching ...

P.S. Let's encourage readers to submit amusing anecdotes relating to E.I. As an example, my bloating is often so severe that the last time I went into my local health food store, the owner asked me when my baby was due. If it gets any worse, I'm tempted to ask for pregnancy leave. I can hardly wait to see their faces as time goes on and I continue to fluctuate between four and six months. Regards to Al (Ergy). (signed) Lesley Forrester

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A letter from Gwen Lawrence in Capreol, Ontario contained a copy of an article sent to her by a friend. Written by Mary Davis, and published by the Christian Century Foundation, the article was, in Gwen's words: "well written and sensitive to the cause of E.I. I always find it encouraging to find articles such as this in mainstream literature." Hopefully, in a future edition of The Quarterly, we'll all read 'HOW THE CHURCH CAN HELP THE CHEMICALLY SENSITIVE', but for now, here's a brief excerpt:

Concerned church members can help people with chemical sensitivity by determining their physical requirements. The chemically sensitive are quick to sense doubt in others, but are ready to discuss their requirements with anyone who shows genuine interest.

A doctor working with the chemically sensitive wrote recently, 'I don't recall seeing anyone recover fully who did not have understanding and loving people around them.' If the church family can support and encourage the chemically sensitive and can help them find ways to serve, it will make a human investment that will be well repaid.

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IT'S ALL RESEARCH!

by Mary Merlin Nelson

From August 1st to 3rd, we painted the ceilings and at least one wall in each of three rooms, two hallways, and two stairwells in our home. So? Millions of other people did too, and they're not writing about it. For most folks, painting is just something you do now and again, but for me, it was a brave undertaking. I'm ecologically ill. Simple tasks are not so simple for me.

When we moved into our "dream house" in 1975, very little redecorating was necessary. A gallon of paint here, some wall-paper there, and we settled in to enjoy the natural oak floors, french doors and archways, many windows, airy spaces, rooms opening one into another, a bedroom closed to the rest of the house, space for plants and paintings and old furniture, in fact, "heaven" in a home. We didn't realize then, how fortunate we'd been to have chosen our "real wood", 50-year-old house in a quiet area surrounded by trees and fresh, clean air.

My "multiple complex allergies" diagnosis began in summer of 1979. By 1981, we knew I was ecologically ill, and our home (by necessity) had become an "environmental unit". The bedroom, my first "safe place", contained naught but an old brass bed with a cotton futon, cotton bedding, cotton pillows and cotton thermal blankets, old silk curtains lined with heavy cotton, bare oak floors, a "solid wood" wardrobe and bureau, and an aircleaner. Over time, we replaced our acrylic chairs, synthetic clothing and furnishings, carpets and other things; cleaned out our household cleaners and detergents; and did all the things we urge newly diagnosed patients to do (bit by bit), and I felt WONDERFUL.

Then I decided to paint the sunroom to surprise my husband on his return from a business trip. A local paint dealer supplied the perfect blue latex paint, assuring me it did NOT contain acrylic, and I began the 12 hour project. My head pounded, my stomach hurt, my gallbladder ached, my throat was hoarse and swollen and I wheezed with asthma, but I got the job done. I knew I'd survive, because the toxic chemicals weren't acrylic-based (I'm wildly hyperreactive to acrylic in any form) ... the man SAID so. He lied.

A month later, after we'd rid our environment of the deadly acrylic molecule (broken down with Lysol spraying at the suggestion of a chemist familiar with the problem, and at a total cost of \$1000.00, including aircleaners), I swore I'd never paint again. It took several months for me to regain my alleged sanity, and stop "hurting". It's taken until this past year for me to heal from the disastrous encounter with a gallon of latex paint, and the several years' setback of being "allergic to your planet". The GOOD news is: I learned a lot from the experience, and began formulating my ongoing belief that "it's all research" while sitting outside in the fresh air reading chemistry books and thinking about getting well again.

Last summer, after careful research, my daughter-in-law painted in the home she and my (allergic) son had purchased near us. I was able to tolerate being there, and even wallpapered her kitchen surrounded by paint smells. Although I was hyperactive, a little irritable and "fragile", for the two weeks we worked in the house, I didn't get "sick". When she decided to paint a hall and stairwell in July (using the same paint she'd used last year) I encouraged her. Several months earlier, my husband had offered to do some needed repainting in our home, and I'd declined. Now, I decided, it was time for some "research". As she painted, I'd visit several times a day and stand in the hallway sniffing paint to see what it did to me. A minor headache, hyperactivity, but not much more. Of course I could always leave it, and that made a difference. What would it do to me 24 hours a day for a month or so if we painted in our own home?

Over the next couple of weeks, I spent most of my "rainy day" time stripping 50 year accumulations of old paint and wallpaper "just in case". I did it the old-fashioned way: warm water and vinegar in a spray bottle; spritz, let stand for a while to soak in, then scrape off with a putty knife. Time, patience, and "elbow grease" was all it took. The vinegar and water solution not only softened the layers, it cut down on the mold and dust. My central vacuum cleaner helped a lot, too.

By the time I was finished, I had decided I COULD survive, and phoned the supplier of the familiar paint to see what it contained. An alkyd interior eggshell enamel made by General Paint (950 Raymur Avenue, Vancouver, B.C. V6A 3L5), it was, according to the plant chemist that Winnipeg Supply called on my behalf, made of a soya oil resin base thinned with mineral spirits. Hurray for the West, using legumes instead of PVC or other petrochemicals! "It's all research, let's DO it", said I, and picked up four gallons with grins and grateful thanks to my local supplier and the helpful staff, as I anticipated the risky enterprise I was about to embark upon. It is important to begin such a project with a POSITIVE attitude, and I truly believed I COULD do it without getting "sick".

Before we opened the paint tins, I moved the aircleaners to maximize their effectiveness. I put the Bionaire 1000 in the sealed-off (towels in the gaps of the door) bedroom, and turned it on high. We left the Electrohome Electrostatic aircleaner in its usual place (the archway between two much-used rooms where I work, relax, read, write, etc.), and turned it on high. We had two oscillating fans and five Phillips CA/90 ecologizers (those recommended by a Professor of Chemistry who taught at the U. of M., and used them in lab/classes) which we moved into the rooms where they would be most needed as we worked. Every window in our work area was opened wide: 8 in the sunroom, 2 in the dining room, 4 in the living room. The den has only one window, but with a fan and two ecologizers, a breeze from the hallway (front and back doors were only closed at night), and cross-ventilation upstairs and down, and blessed by perfect summer weather, even that room, the hallways, and the stairwells were "safe".

We painted for two days (my husband with a roller, and me with a small brush designed for touch-ups, ceiling trim, and corners and edges a roller cannot get into), taking frequent breaks outside in the fresh air, and leaving the windows open and fans running 24 hours a day. We began in the room in which we spend most of our leisure time (to dry and air it while we completed the job), then moved into the other side of the house (where we had the most "open space" with adjoining rooms and hallways, and 14 windows). The weather cooperated, a warm breeze stayed with us throughout, and we completed our work using three and a half gallons of eggshell enamel over two ten-hour days. I knew by the end of the second day that I'd just about reached my limit and discovered on the third morning (when we had twenty minutes' work to do in the upstairs hallway and stairwell) that I had. Minutes after opening the tin of paint, my fingers "buzzed" and my hands went numb. Central nervous system breakdown? Almost, but not quite. KNOW YOUR TOLERANCE THRESHOLD AND RECOGNIZE SYMPTOMS AS THEY BEGIN TO OCCUR. TRUST YOUR INSTINCTS. LISTEN TO YOUR BODY! My husband finished the painting, and we spent the entire day outdoors, lazing in the back yard enjoying the sunshine and joy of a job well-done. The hyperactive reactions caused by the paint served to give me excessive energy, which I put to good use moving furniture and paint sheets from room to room. My husband understood my irritability, and the compulsive trait I exhibit while "in reaction" made me ever so careful with the trim work. Reactions are simply "research". Each thing you do helps you to understand E.I. and what it does. Use the knowledge, and the reactions, to your best advantage. That's what I call "Creative Schizophrenia"!

A NOTE OF CAUTION: what works for me may not necessarily work for you. Most importantly, I "went into training" for two weeks before we began painting. We were scrupulous about my diet and avoided any outside risks that would overload my system. I was as healthy and stable as I could be, and we took careful on-going steps to insure I would remain that way. The odor from the paint was minimal and not entirely unpleasant (you need the smell to know the paint is off-gassing), and now, ten days after our project, the odor is almost gone. The ventilation in the house is probably the best thing we had going for us. Dry to the touch in about 6 hours, the enamel (by now) is almost sealed and is no bother at all. Although "fragile" for a week, I've had worse reactions from going shopping (something I can do rarely if ever) and so consider myself an "achiever", and then some! It's tempting to stay in my glass bubble, but I don't want to spend the rest of my life trapped and afraid to try. So we DID it. My supportive and encouraging husband is very proud of my obviously regained tolerance and improved health. I'm proud too. I almost let fear stop me, but I didn't!

The past seven years haven't been easy for us, but along the way we've managed to laugh about the day to day setbacks I encounter each time I step out of my "glass bubble" and into the "real world". Flat on my back again? What can I learn from this? "IT'S ALL RESEARCH!" I'd mutter it while confined to bed,

between bouts of projectile vomiting or psychotic schizophrenia or whatever else came as a result of living like an Earthling, but I've always managed to derive some benefit from every trauma. An avid reader, I'd set out to discover all I could about E.I., about toxic chemicals and natural alternatives, about my nervous system, brain and body, and most of all, about ways to cope, survive, and enjoy life even while being confined to my own home and yard. There is pride in facing each obstacle, because now and again I even surprise myself. I CAN DO ANYTHING! Well, almost anything, and some day I'll be completely recovered, I have NO DOUBT ABOUT IT. I'm fighting and winning. All it takes is research, and it's ALL research.

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[My heartfelt thanks to Anne Malone at Winnipeg Supply, Marcel, the chemist in Regina, and the General Paint plant chemist in Vancouver, all of whom aided me in my search and adventure. Also thanks to Yvette, and to Al, for helping me get ready to DO it! I leave you with this, from an unknown author: "WHERE THERE IS NO FEAR, THERE IS NO COURAGE. AND WHERE THERE IS NO COURAGE, THERE IS NO HOPE". Amen to that. Thanks, eh? MMN]

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S O M E T H I N G T O T H I N K A B O U T

"The emotional response to having chronic ecologic illness follows many of the stages which have been described by Elisabeth Kubler-Ross in dying patients: i.e. (1) denial and isolation; (2) anger; (3) bargaining; (4) depression; (5) acceptance. Unfortunately, this adjustment process is often retarded and/or cycled through repeatedly without resolution at the level of acceptance for certain reasons. In the first place, the illness is chronic but rarely fatal. Consequently, the ecologic patient can cling to denial of illness and/or hope of a miraculous cure. Other factors also contribute to a patient's inclinations to deny the illness. Perhaps the greatest source of hope and frustration is that the person looks normal - the symptoms which constitute the illness are usually lacking any outward sign of abnormality (e.g. no broken bones, no fevers) both from the standpoint of the general public, friends and family, and from that of physicians. Commonly the patient has an exhaustive series of clinical tests and examinations completed without the discovery of a single organic lesion to account for his multiplicity of symptoms. The person is then branded by the medical profession and by his family and friends as having a "psychosomatic", "functional", or "hypochondriacal" illness."

from ECOLOGIC ILLNESS by Iris R. Bell, M.D., Ph.D.

T I B B I T S ' C L E A N A I R M A C H I N E

by Peggy Foster

They say there's a bright side to every problem, a silver lining in every storm cloud, a reason for everything.

In 1983, Arthur Tibbits of 14 Catherine Street, Cobourg (Ontario), realized he had environmental hypersensitivities. He could no longer work at his profession as a high pressure welder. Within minutes of starting his work the fumes created made him disoriented; he'd forget his own name.

Almost immediately after eating he would vomit until his stomach was empty. For a year, oatmeal porridge was a staple in his diet. Tibbits had two stomach operations. Doctors told him he'd be fine, that they had cured his problems. But the problems persisted.

Tibbits reacts to almost everything from most foods to pollen to contamination in the air. Congestion, disorientation, mood swings that took him from tears to rage, were all his life consisted of, and things were getting worse. Unable to work, he was at home, and his condition had threatened his life to the point where the most he could do was sit in a chair and watch the world go by. It was at this point he heard of Dr. Irvine Korman of Toronto, a clinical ecologist specializing in environmental medicine.

Dr. Korman confirmed the diagnosis of environmental hypersensitivity disorder. Tibbits was taking nutritional supplements to build up his strength, and this was a start, but breathing polluted air minimized the beneficial effects. Tibbits's narrow world of acceptable substances was on hold.

Knowing Tibbits's inventive nature, Dr. Korman suggested Tibbits build a machine to clean the air in his home. In late 1984, the original Tibbits Clean Air Machine was built and attached to his furnace.

The eight layers of filters in the machine take 230 chemicals out of the air and lower the pollen count to .3 of one micron. (In relation, a dot of a lead pencil is 200 microns.) The product is pure air.

Almost immediately, Tibbits began to feel better. He put a machine in his bedroom and finally started sleeping at night, his body responding to the unpolluted air, and healing itself. Next he built a portable model for his car, to enable him to go for a drive or just downtown to look after business.

Albert Edwards, R.R. 6, Cobourg, has suffered with chronic asthma for 40 years. Many times his wife Mary had to rush him to hospital for oxygen because he couldn't breathe. "For years I went to bed half-dressed because I had to be ready at any moment

to get Al to the car and rush him to the hospital when he couldn't breathe. He'd be fine one minute, and blue the next," she said. "This year was predicted by doctors to be the worst in 30 years for pollen, and I didn't know how we could cope because the chlorophyll in the grass and trees and humidity are all so hard on Al," Mrs. Edwards said.

Then the Edwards family heard about Tibbits's machine. Tibbits offered it to the couple to see if it would work for Al. "The first night we put the machine in the bedroom, Al was up all night bringing up phlegm and blowing his nose. By morning, the pure air had allowed him to get rid of much of the congestion, and he felt better," Mrs. Edwards recalled.

Edwards has three machines now, and credits them with a 70% reduction in his asthma. He has been able to reduce his medication by a similar amount. "We have one Clean Air Machine for the recreation room in our home, one for the bedroom, and one for the car," says Mrs. Edwards. "Before if we went on a trip, the first thing we had to do after checking into a motel was find out where the hospital was, and notify a doctor of Al's condition. Now we take the machine and plug it in at the motel, and Al's fine," she says with relief in her voice.

"I hadn't been able to mow the lawn for 20 years because my asthma was so bad, but I felt so much better this year due to the machine, I was able to cut it myself. The Clean Air Machine is one of the best investments we've made," Al Edwards said.

In the past year Tibbits has moved his business out of the basement of his home to a manufacturing plant on Danforth Road in Hamilton township. He received Canadian Standards Approval (CSA) for the room model in late March. The furnace model costs \$750 and will purify the air in a home up to 2,000 square feet. The portable apartment model also sells for \$750, while a smaller portable model, suitable to do one room, costs \$450.

"Indoor pollution is eight to ten times worse than outdoor pollution as the air becomes chemical soup filled with gases given off by plastics and other man-made materials," Tibbits says. "People often feel sleepy or sick or hyper because they're breathing in air full of everything except what their body needs." He says his machine breaks the cycle and gives the body pure air, then the body starts casting out the congestion and impurities.

The machine has allowed Tibbits to function again, and even though he still faces allergy problems, his invention has opened the door for others, and provided them with a chance for a breath of fresh, pure air.

[Editor's Note: As with all products, air cleaners should be evaluated for personal compatibility. BRAVO, ARTHUR TIBBITS!]

D O N ' T Q U I T

When things go wrong, as they sometimes will,
When the road you're trudging seems all uphill,
When the funds are low and the debts are high,
And you want to smile, but you have to sigh,
When care is pressing you down a bit,
Rest if you must, but don't you quit.

Life is queer with its twists and turns,
As every one of us sometimes learns,
And many a person turned about
When they might have won, had they stuck it out.
Don't give up though the pace seems slow,
You may succeed with another blow.

Often the struggler has given up
When he might have captured the victor's cup,
And he learned too late, when the night came down,
How close he was to the golden crown.
Success is failure turned inside out,
The silver tint of the clouds of doubt,
So stick to the fight when you're hardest hit,
It's when things seem worst, that you mustn't quit!

Author Unknown

* FAITH IS BELIEVING IN SOMETHING WHEN REASON TELLS YOU NOT TO!*

One night a man had a dream. He dreamed he was walking along the beach with the Lord. Across the sky flashed scenes from his life. For each scene, he noticed two sets of footprints in the sand; one belonging to him, and the other to the Lord.

When the last scene of his life flashed before him, he looked back at the footprints in the sand. He noticed that many times along the path of his life there was only one set of footprints. He also noticed that it happened at the very lowest and saddest times in his life.

This really bothered him, and he questioned the Lord about it. "Lord, you said that once I decided to follow you, you'd walk with me all the way. But I have noticed that during the most troublesome times in my life, there is only one set of footprints. I don't understand why when I needed you the most, you would leave me."

The Lord replied, "My son. My precious child, I love you and would never leave you. During your times of trial and suffering, when you see only one set of footprints, it was then that I carried you."

Author Unknown

IMMUNOTOXIC CHEMICALS IN CONSUMER PRODUCTS

by Debra Lynn Dadd and Dr. Alan Scott Levin

[EDITOR'S NOTE: The following excerpts are taken from Appendix 1 of A CONSUMER GUIDE FOR THE CHEMICALLY SENSITIVE which went out of print on October 15, 1984, and was replaced with two books by the same authors: THE TYPE 1/TYPE 2 ALLERGY RELIEF PROGRAM by Alan S. Levin, M.D. and Merla Zellerbach, and NONTOXIC & NATURAL: How To Avoid Dangerous Everyday Products and Buy or Make Safe Ones by Debra Lynn Dadd. Appendix 1 was not included in either of the two new books, but the authors have kindly granted their permission to reprint the valuable information below. THANKS!]

The immunotoxic chemicals in this appendix may be either contained in or used in the manufacture of the products listed below them (i.e. many but not all shampoos contain formaldehyde). In case of emergency, ingredient lists for most consumer products are available from local poison centers.

* already recognized as being toxic or carcinogenic

*ACETONE

adhesives, cooking fuels, dyes, inks (drawing, stamp pad), nail polish remover, perfume, pharmaceuticals, plastics, solvent.

ACRYLIC RESIN & FIBERS

adhesives, auto paint, contact lenses, dentures, floor polishes, latex paint, "Lucite"/"Plexiglas", medical instruments, nonwoven fabrics (carpet backing, disposable diapers, felt, filters, sanitary napkins, shoe liners), paper coating, synthetic fibers (blankets, carpets, clothing), textile finishes, wood finishes.

*AMMONIA (see also Ammonium Hydroxide)

acrylic artist glue, adhesives, carpet and upholstery shampoo, cleaning solutions, detergents, disinfectants, drawing ink, fertilizers, floor polishes/floor wax removers, latex preservative, melamine plastic, metal polishes, permanent wave solutions, pharmaceuticals, refrigerant, synthetic fibers, textile dyeing, urea formaldehyde, window cleaners.

*BENZENE

aniline dyes (used in cosmetics), art and craft supplies, carburetor cleaner, car wash compounds, denatured alcohol, denture adhesives, detergents, dyes for synthetic fibers, essential oil extraction, fabric adhesives, fungicides, metal polish, nail polish remover, nylon, paint and varnish removers, permanent press fabric finish, pesticides, plastic glass substitutes, polyester, room deodorizers (solid or spray), rubber cement, shoe polishes, "Styrofoam".

BENZOIC ACID

antifungal agents, artificial flavors, dentifrices, food preservative, mildew proofing, mouthwashes, perfume, tobacco.

***BENZYL ALCOHOL**

acne medications, artificial flavorings, ball point pen inks, cosmetics, cough drops, ear drops, heat-sealing polyethylene films, nylon dyes, ointments, perfume, photographic chemicals, solvent.

BHA and BHT

preservatives for foods and cosmetics.

CALCIUM PROPIONATE

antifungal agent in medicines, mildewproofing, mold inhibiting additive in bread, other foods, tobacco, pharmaceuticals.

***CARBON TETRACHLORIDE**

agricultural fumigant, refrigerants, solvent.

***CHLORINE GAS**

disinfectants, processing of meat, fish, vegetables and fruit, shrinkproofing wool, water purification (municipal water systems, hot tubs, showers, spas, swimming pools).

***CHLOROFORM**

fumigants, insecticides, plastics, refrigerants, solvent.

***ETHANOL**

acne medications, adhesives, aftershave lotions, antifreeze, astringents, bath oils, Christmas tree ornaments, cleaning preparations, cooking fuels, correction fluids, cosmetics, detergents, dyes, inks (drawing, duplicating, fountain pen, stamp pad), leather dyes, mouthwashes, nail polish, perfume, photographic chemicals, preshave lotions, room deodorizer sprays, shoe polishes, suntan preparations, tub and tile cleaners.

ETHYLENE

anesthetic, gassing fruit to accelerate ripening, refrigerant.

ETHYLENE GLYCOL

acrylic artist paints, adhesives, antifreezes, ball point pen inks, cellophane, cleaning solutions, cosmetics, detergents, drycleaning compounds, dyes, Easter egg dyes, enamels, extractant solvent, foam stabilizer (shaving cream, whipped cream), furniture polishes, germicide, insect repellants, laminating materials, lacquers, leather dyes, perfume, pharmaceuticals, photographic film, plastics, polyester fibers and films, printing inks, shoe polishes, solvent, textile processing, tobacco, varnish remover, windshield washer solvents, wood stains.

***FORMALDEHYDE**

adhesives, air deodorizer, air pollution, antifreezes, antiperspirants, bactericides, "Bakelite", cellophane, concrete, cleaning solutions, contraceptive creams, cosmetics, detergents, disinfectants, drycleaning compounds, dyes, embalming fluid, enamels, explosives, extraction solvents, fabric finishes (permanent press, water repellant, dye-fast, flame resistant, water resistant, shrinkproof and mothproof), fertilizers, finger paints, fungicides, gas appliances (combustion by-product), gelatin capsules (preservative), germicide, hair growing products, hair setting lotions, ink (ball point pen, printing), insect repellant, insulation (fiberglass, urea formaldehyde foam), jute or hemp fiber preservative (carpet backing, burlap, area rugs, rope, twine), laminating materials, lacquers, laundry starches, leather tanning agent, maple syrup (injected into trees), mildewproofing, mouthwashes, nail hardeners, nail polishes, paint (tempera), paper finishes, paper towels, particleboard, perfume, pesticides, pharmaceuticals, phenol formaldehyde resin, photographic chemicals and film, plaster, plastics, plastic cleaners, plywood, polyester fibers and films, preservative, pressboards, resins, rodent poisons, room deodorizers (blocks, wick types), shampoos, shoe polishes, soaps, solvent, textile processing, tissues, tobacco, tobacco smoke (combustion by-product), toilet paper, toothpastes, UFFI, vitamin A and E preparations, varnish removers, wines, wood panelling, wood preservative, wood stains, wood veneer.

***HEXACHLOROPHENE**

acne medications, aftershave lotions, germicidal soaps, toothpastes.

***ISOPROPYL ALCOHOL**

adhesives, cosmetics, detergents, disinfectants, essential oils, hair dyes, leather dyes, lens cleaners, room deodorizer sprays, rubbing alcohol, spot removers, windshield washer solutions.

***MALATHION**

pesticide

***METHANOL**

antifreeze, cooking fuel, dyes, heating oil extender, leather dyes, nail polishes, natural gas, photographic chemicals, solvent, spot remover, windshield washer solvent.

***METHYL BROMIDE**

extraction solvent for vegetable oils, fumigant (produce).

***NAPHTHALENE**

antiseptics, bathroom deodorizers, charcoal lighter fluids, cooking fuel, fungicide, indelible inks, lubricants, moth repellants, preservative, room deodorizer blocks, stencil inks, tanning of leather, waterproofing compounds.

***PENTACHLOROPHENOL**

algicide, bactericide, fungicide, herbicide, wood preservative.

***PERCHLORETHYLENE**

dry cleaning solvent

PERFUME

acne medications, aftershave lotions, all purpose cleaners, astringents, baby cream/lotion/oil/powder, bath oil, bath salts, bathroom cleaners, bubble baths, carpet cleaners, charcoal lighter fluid, cleansing creams, colognes, contraceptives, cooking fuel, cosmetics, deodorants, detergents, disposable diapers, facial tissues, furniture polishes, hair conditioners/dressings/dyes, hair removing lotion, hair sprays, powders (body, face), sanitary napkins, shampoos, shaving creams and lotions, shoe polishes, soaps, spot removers, suntan preparations, tampons, toilet bowl cleaners, toilet paper.

***PHENOL**

acne preparations, adhesives, aspirin, "Bakelite", baking powders, caulking agents, detergents, disinfectants, dyes, enamel paint, epoxy, explosives, fiberglass, flame retardant finishes, food additives, germicidal paints, herbicides (2, 4-D), inks (fountain pen, printers, stamp pad), insulation (thermal and acoustical), jute or hemp fiber preservative (carpet backing, area rugs, rope, twine), laundry starches, matches, metal polishes, mildew proofing, nylon, paint (poster, tempera), pesticides, pharmaceuticals, phenolic resins, photographic chemicals, plastics, plywood, preservative in cosmetics (mascara, liquid eyeliner, cream rouges and eyeshadows), preservative in hair care products (hairspray, setting lotion, shampoo, hair color), preservative in medications (allergy shots, nasal sprays, bronchial mists, cough syrups, eye drops, antihistamines, cold capsules, decongestants, first aid ointments), sealants, shaving creams/lotions, shoe polishes, solvent, soundproofing, "Spandex" (girdles, support hose, etc.), synthetic fibers, tin can inner linings, water color paints, wood preservative.

POLYESTER FIBER, FILM, RESIN

baked enamel finishes, bedding, clothing, disposable diapers, food packaging, laminated plastics, latex paints, magnetic recording tapes, nonwoven disposable filters, plastic bottles, plastic items, plastic pipe, protective coatings, sanitary napkins, tampons, upholstery.

***PROPYLENE**

appliance parts, artificial grass and turf, auto parts, carpet fibers, food containers, laboratory ware, nonwoven disposable filters, packaging film, paper, plastic bottles, plastic pipe, printing plates, reinforced plastic, surgical casts, toys, trays and containers, upholstery fabrics.

*POLYVINYL CHLORIDE (PVC)

adhesives, athletic supporters, electrical insulation, flooring, garden hose, magnetic recording tape, paper, plastic containers for toiletries, cosmetics, and household chemicals, plastic pipe, raincoats, records, shoes, synthetic turf, textiles, toys, window and door frames.

*QUATERNARY AMMONIUM COMPOUNDS

bathroom deodorizing cleaners, disinfectants, furniture polish, mildew proofing, toilet bowl cleaners.

*SALICYLIC ACID

acne medications, aspirin, fungicide, mildew proofing.

*SODIUM NITRATE

dyes, fertilizers, matches, preservative in cured meats and fish, pharmaceuticals, tobacco.

*SODIUM NITRITE

pharmaceuticals, preservative in cured meats and fish.

*SULFUR DIOXIDE

air pollution, bleaching agent for oils and starch, disinfectant, food additive.

*TOLUENE

acoustical tile, adhesive solvent in plastic toys and model airplanes, aviation gasoline, detergents, explosives (TNT), felt tipped markers, gums, high octane gasoline, inks (indelible, stamp pad), lacquers, linoleum, permanent marking pens, resins, rubber, solvent, spot remover, vinyl.

UREA

adhesives, animal feed, cosmetics, dentifrices, fertilizers, flameproofing, medicines, plastics, toothpastes.

*UREA FORMALDEHYDE RESIN

dinnerware, foam, insulation, paper products, particleboard, plywood, textiles.

*XYLENE

acoustical tile, aviation gasoline, enamels, felt tipped markers, inks (indelible, permanent marking, stamp pad), lacquers, leather dyes, rubber cement, shoe polish, solvent.

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[IMMUNOTOXIC CHEMICALS IN CONSUMER PRODUCTS! That was only part of the lists. Scary, isn't it? Thanks again to Debra Lynn Dadd and Dr. Alan Levin for informing us. Buyer beware! Read labels!]

WHAT IS ECOLOGICAL ILLNESS?

by Dr. John G. MacLennan

[The following article was transcribed from an audio cassette of a H.E.F. Canada Seminar given on October 20, 1984. Many thanks to Nora Schallhorn, President of the Waterloo/Wellington Branch, for sending me that cassette, and several others. MMN]

There are many manifestations of chronic illness that are experienced by patients, and they cover many organ systems in the body - the brain and the central nervous system particularly. You'll see weeping and unhappiness, something we see regularly in our practice. You'll see asthma, arthritis, pains in the back, stomach aches in children and adults, myalgia, aches and pains in the muscles, and so on. This is one of the characteristics of the disease. It is a multi-organ, multi-response disease.

One of the great problems of ecological disease is its overwhelming, bewildering nature. It may discourage and depress you to get involved in learning about it in the early stages. Don't let it throw you, though. This is one of the reasons why H.E.F. Canada was established, to provide support for patients who were afflicted with this disease, and required help to become educated and establish the lifestyle changes that are necessary to regain good health.

There are quite a few patients who do live a normal life. For the fraction of 1% of the very supersensitive patients that cannot live in normal, modern society, the rest of the 99% are people who are chronically ill. By finding the causes of your illness, and changing your lifestyle, taking treatment, medication and so on, you can remain well in a hostile environment. This is what clinical ecology is all about. It's the study of man in relation to the total environment.

Don't think that this is queer, bizarre, or whatever. A large segment of the population is chronically ill and unproductive. You've heard about the difference of opinion with medical experts. I practiced allergy for 15 years, but I couldn't be satisfied with my failures. The allergist is perfectly happy to do his little bit, and what he can't clear it up, he then treats with antihistamines, cortisone, or whatever. When they say that our procedures are unscientific, unproven and so on, they are still using prick tests, and scratch tests that were established in 1865. I don't think they've made much progress in a hundred years. We're not going to argue with the allergists. Ecologic medicine is an expansion and extension of allergy.

The controlling factor is the inherited predisposition to develop sensitivities. This is what we, as allergic people, pass on to our progeny. If there is a family history of allergy, the children are bound to be born with active allergies. Wheat products, milk, beef, coffee, things that we're most frequently and highly exposed to, we become sensitized to.

In modern medical practices, there's been an ongoing transformation of the general doctor of pre-war times, to the specialists, and the organ-related doctors. The family doctor used to treat grandparents, parents, children, right on down. He made housecalls, went into the home, and had much more knowledge of how they lived. Now, we live in a society of specialists. Take a look at your "ologies", and the business of not being "physically sick". If you don't have something in your physical examination or laboratory tests to indicate abnormality, then you're not sick, it's between your ears, and they'll send you home with some Valium or whatever, or to a psychiatrist.

Most ecologically ill people have been through all the specialists. The family doctor, the internist, the pediatrician and the dermatologist have done their examinations and found nothing "wrong". The lab tests are basically negative. As a result of our scientific progress since World War II, we're in compartmentalized medicine, so we're dealing with organs, and each organ specialty has its medication: cardiology, urology, ophthalmology, and all the other "ologies". We're not treating the entire individual, we're treating a bunch of organs. As a result, it's not unusual to have a patient come in who's taking six or eight different medications at the same time, for different symptoms in different organs. We have an over-medicated society, and increasing incidence of chemical hypersensitivity. Approximately 10% of hospital admissions are related to drug sensitivity. Most medical practice today is drug-oriented, and treats the end result, and not the cause.

Environmental medicine is not the same as clinical ecology. Environmental or occupational medicine, per se, deals with the measurement of contaminants. Toxicology is the same way. They're talking about the poisonous level of exposure. The ecologic patient is reacting to trace amounts. They'll react not only to tobacco smoke, but to the odour of the smoke on fabric, or the residue of perfume or cosmetics, male and female.

The allergist looks after the wheezes, sneezes, itches, asthma, hayfever, and the like. Other factors are also very important: injury, infection, congenital, psychiatric, psychologic, physical. People react to heat and cold, electromagnetic forces, the barometric pressure. People with arthritis can tell you when the weather is going to change. When I practised allergy, we were aware of these things, and I was aware of foods. But it wasn't until we realized what the chemicals were doing that we really tied it all together. It's like a jigsaw puzzle. You have certain key pieces that fit together. Instead of just looking at a piece of it, we're looking at you in the entire environment.

CHARACTERISTICS: Ecological illness is a great imitator. It can imitate any disease from cardiac disease to migraine headaches, to mental disease. This is what happens to a lot of people, they end up being sent to the "shrink" because there's no lab test, no physical examination, and yet they act in an abnormal way.

Ecological illness is basically a reversible disease. This is the beauty of it, if we get it early enough. You must exclude organic disease in your diagnosis first. E.I. is a physiological defence mechanism to reject an offending exposure. If you eat a food that disagrees with you, you either vomit it, or pass it out the other way. The same thing with hayfever. It's a mechanism of wheezing, sneezing, blowing, profuse production of mucus to rid the body of the offender. The individual allergy is a disease. This is what you must remember. There are no two of you alike. Your requirements are not the same for sleep, for food, for exercise or your tolerance for environmental exposures. That is extremely important. Even in a family, different members will have different problems, and the solution will vary with each individual. Common solutions are rarely of value, but you can use the experience of other people to apply to your own case.

General guidelines are valuable. The extent of your allergy may be mild, moderate, severe or exquisite. E.I. progresses from simple beginnings. A baby will have colic, and if it's not treated properly with foods, etc., it will probably end up in the teens or twenties with migraines, digestive complaints, exhaustion, fatigue, poor cerebration, gallbladder disease. It may skip a generation. It may hit the grandparents and the grandchildren. However, the parents are still in the age group to react, so that you can't say for sure.

As long as the disease is untreated, it increases in complexity and severity. It is chronic and low grade debilitating, but not too many people are in the hospital with E.I., or put flat on their backs at home. They struggle on, drag themselves to work, or wherever, and try to do the best they can. It's like an iceberg, with your visible eighth as the presenting symptoms and complaints. The seven-eighths we don't see, is the potential source of ongoing, new symptomatology involving more and different organ systems as time goes on. This is the part we try to control by ecologic diagnosis and management, in order to melt as much of the iceberg as we can. The more you know about this disease, the more you can do to help yourself.

MANIFESTATION: A combination of all causes working at the same time on the individual. The individual effect: a single cause may affect more than one organ simultaneously. Someone drinks milk and they may get a headache, their nose may run, and they may get a stomach ache. Three or four organs react at the same time. The amount of E.I. in the family or individual is going to determine the severity and the extent of the symptoms.

THE DEGREE OF HYPERSENSITIVITY: One or two organs involved, usually self-diagnosed (you eat shrimp and get hives, you get a headache from eating chocolate). You can make your own diagnosis, and stay off the substance if you're smart. A moderate degree involves several organs. Multiple organ response is considered severe, and with the exquisite, there is complete catastrophe, with a whole body response. During a whole body response you can't function or cope.

MANAGEMENT involves every member of the household. If you've got a child who is ecologically ill, and it goes back into the parents and grandparents, there's no way that you can get that child well if one or both parents are smoking or if one member of the family is going to drag their feet. It's a cooperative deal, because we're dealing with a very profound problem that's going to need the support of everybody in the family.

SIMULTANEOUS MANAGEMENT AND TREATMENT: You must know all your different major causes. In the ecologic investigation, we identify what inhalants need treatment and avoidance, and foods that need to be avoided and rotated. But the chemicals are the most difficult to manage. Chemical contaminations are the greatest unrecognized cause of general debility, unproductivity and chronic illness. In my opinion, indoor air pollution is the greatest offender. Air levels, wind levels, the accumulation of pollutants in temperate climates are important. You must determine your individual level of chemical susceptibility, and establish a corresponding remedial program.

Each individual requires their own specific management program. You have to decide whether you want a "crash program", hospitalization in the U.S.A. for investigation, or a trial move to a rural location or a half-way house so you can see what the urban environment is doing to the patient. It helps to get an overall picture of the ecologic problem, and to provide the three C's: Clean air, Clean water, and Clean food. Oxygen is also very helpful in treating the chemically susceptible patient, but not so much for the foods and inhalants (i.e. particles: dust, pollens, molds, animal danders, and so on), rather the gaseous inhalants of chemicals.

In a severe case, where you need to get an urgent control of the symptoms, we develop what we call "an oasis". Get one room in the house that is "clean", and where the patient will feel relatively secure. Usually the bedroom is best, because this is where you spend more time than in any other room in the house. This is necessary for the exquisite degrees of sensitivity. You can put the oxygen in there while changes are being made in other parts of the house. The bedroom should be isolated. You strip the room to the bare floors if possible. Get rid of wall to wall rugs and sponge rubber. If taking up the rug would make things worse, you can put an old wool rug over it to cover it on a temporary basis, but basically, it's better to find a room where you can take up the rugs and have a bare floor. Wooden and metal furniture, cotton and woolen bedclothes (the older the better), close up your hot air vent and use a portable, electric hot water heater. DON'T USE AN ELECTRIC BLANKET, because it is positively one of the worst things you can do. You'll spend the whole eight hours with your nose immersed in chemical fumes, because you'll have a synthetic cover, and plastic wires inside with a rubber sheath on them. Get yourself a nice feather eiderdown.

If you're having difficulty in sorting out materials, get somebody who has a good sharp nose to help you to isolate things.

Apply domestic control measures as far as you can at school and employment (e.g. tobacco smoke and perfume). Exclude fresh newspapers and magazines, duplicators, cement and glues, and in schools, the magic markers and smelly materials that they use. What you're doing is using common sense, and these things, you can do in close cooperation with the school. Get all the smelly cleaning agents changed over to those that aren't as bad. If you look around, you can find products that may be well tolerated.

TESTING MATERIALS: Some people who are very highly chemically sensitive can tell by the feel of a fabric whether it is chemical or offensive to them (the hot, crawly feeling). Natural fabrics will absorb moisture, where the others don't. Apply heat to the fabrics, put them in a jar, cool them off, and if there's any odour to the material in the jar, then avoid it. Heat and moisture bring out odours. Go around a room, breathe on the wallpaper or fabrics, and that will often help you to get an idea as to whether they're offensive or not. Sleeping on it is important too. If you're going to be doing some painting, or getting new fabric, get a swatch of it, put it on your pillow, and sleep on it for a few days. You'll soon know whether you tolerate it or not. Don't do any painting in your house in the cold weather, and when you do your painting, test it out first to see if you can tolerate it.

PHYSICAL FITNESS is a very important part of ecologic management. There are some people who can abort or clear up a reaction by very heavy physical exercise. Don't use any unnecessary or obvious odourous materials (e.g. smoking, scented cosmetics). Use soap and water and good hygiene. As your ecologic problem gets under control and you get your treatments, get rid of the foods that you're reacting to, your body odour will disappear. Use baking soda to brush your teeth. Avoid drip-dry clothing and use natural fabrics. Scrutinize your woollens because most woollens that are manufactured are mothproofed before they're woven. Go to craft materials. Pastel shades are better because they have fewer fixatives and binders than the dark colors. Use non-odourous detergents (a minimal quantity). Borax is very helpful as a bleach, and it's also a great insecticide. Launder thoroughly and rinse. You can put some baking soda in your rinse if you want to. Try to find a safe personal cleansing agent. You're not going to react adversely to everything.

FOOD GLORIOUS FOOD: There's no absolutely clean food unless it's sterilized. Get organically grown food. You'll often have to go to the producer and talk to him. How is the food grown? Avoid food additives. Use ceramic, stainless steel, iron, enamel or glass containers. No aluminum. No Teflon, because it gives off toxic fumes when heated. Remember, you can get similar reactions from foods and chemicals. You'll need a few pointers about prevention: what you can do to help yourself. There aren't enough clinical ecologists to go around. Much of what you must do involves just common sense. If you have a real problem you have to make a complete diagnosis and have simultaneous management of all ecologic areas: inhalant particles, chemicals and

foods. If you leave one of those areas untreated or unmanaged, you won't get a successful result, you'll get failure, so you've got to treat them all the same way.

If you are currently suffering from chronic, undiagnosed medical complaints, and you know that you do have some allergies (i.e. hayfever), what can you do to help yourself? Identify the specific causes of your symptoms with a daily symptom record. List all the foods and fluids ingested except water, and note the symptoms at the hour that they occur. If you get up in the morning and you've got a runny nose and a headache, put it down. Note the weather changes, and note what you're doing at that time (whether you're doing some cleaning, cleaning the oven, etc.). This will give you clues as to what you're reacting to. The questions you ask are: do dust, pollens and animals bother you? Do foods bother you? Do chemicals? Observe your reactions to your environment. Keep a daily food record. Put the date down. During breakfast, you list your foods and the fact that you awakened with a runny nose for an hour, and a cough in the morning. Later on in the afternoon (e.g. 1:15 you felt sleepy and had a headache after lunch and that cleared up by 5 PM). If after your evening meal you had pie, cheese, milk and sugar, and felt gassy and bloated, write it down. If you repeat that, you can correlate these complaints. Keep your diet record for two or three weeks and then go back over it, and you can associate certain causes. Headaches after eating chocolate? In the morning? Again at night? You can do these things yourself.

The treatment is to reduce your total load, establish the three C's, evaluate your water (get several sources of clean water so if one is contaminated you can go to another), your air (remove pets and vegetation from your house). A central vacuum is extremely valuable because it gets rid of the dust while most of your conventional vacuums recirculate the dust while getting rid of mud and keeping dog and cat hair and big things like that in the bag. The dust is what does the dirty work, because it's what you breathe in. The urgency and extent of remedial measures depends on how sick you are. Create your oasis first, and then evaluate the economics and time required to achieve the necessary changes in your home, your heating system, or whatever must be done. Again, use your common sense.

DIETARY MEASURES: Avoid known offenders and rotate foods. Nutritional supplements are fine, depending on your tolerance and requirements, but don't go off on a tangent of megavitamin or orthomolecular therapy, because if you ignore the chemical and inhalant factors, you'll probably end up sensitizing yourself by overdosing. You don't need a lot of supplements, but these can be very important: Vitamins A, B, C and E, calcium, magnesium, selenium, zinc, and essential amino acids. If you have chemical sensitivities you probably need six to ten grams of vitamin C per day (year-round) to help you fight off the reaction to chemical exposures. Consult with your doctor or clinical ecologist.

THE NEED FOR SUPPORT AND ASSISTANCE OF THE ECOLOGICALLY ILL INDIVIDUAL: So many patients, when they're confronted with the horrendous change they have to make in their lifestyle, are bewildered, confused and depressed. They need help due to the inability to cope. They're not functioning mentally, so they can't make decisions. This is where they need the help of their families and other people who are experienced in this field. Until ecologic management is instituted and becomes effective, education and practical assistance is required to establish the nuts and bolts, the fundamentals of ecologic management.

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[EDITOR'S NOTE: Dr. John G. Maclellan graduated in medicine at the University of Alberta, interned at the Hamilton General Hospital and worked in pathology until he joined the Navy. After the war, he took his allergy training in Chicago, then returned to the Hamilton General Hospital and headed the allergy outpatient clinic for 32 years. About 21 years ago, he and other American doctors began to exchange ideas, and the concepts of environmental medicine and clinical ecology evolved. Today, Dr. Maclellan is practising environmental medicine and allergy in Dundas, and has, in the intervening years, trained various Canadian doctors. Dr. Maclellan has lectured extensively in all parts of Canada, and is a sought-after speaker in the U.S.A. and other parts of the world. He is the founder and medical director of The Human Ecology Foundation of Canada, is president of The Canadian Society for Clinical Ecology and Environmental Medicine, and is a Fellow of the American Academy of Environmental Medicine. BLESS YOU FOR BEING, TEACHING, AND DOING WHAT NEEDS TO BE DONE, DR. MACLENNAN!]